Plant Pathology Circular No. 91
March 1970

Fla. Dept. of Agr. and Cons. Serv.
Division of Plant Industry

BACTERIAL LEAF BLIGHT OF SYNGONIUM

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A serious disease of Nephthytis or Mexican creeping vine (Syngonium podophyllum Schott) causes considerable damage every year to greenhouse-grown plants in central Florida. High temperature, high humidity, and crowded conditions are conducive to the development and the severity of the disease.

SYMPTOMS. The most characteristic symptoms are large, water-soaked lesions along the leaf margin and the leaf tip, sometimes forming elongated areas of diseased tissue extending toward the midrib (Fig. 1). Newly initiated lesions are dark green, gradually turning yellow, and later brown and necrotic. A bright yellow zone often separates the lesions from the healthy part of the leaf. On the undersurface of the older lesions white flakes of dried bacterial exudate are often visible to the unaided eye (Fig. 2).

The disease has been noted most frequently on the variety 'Green Gold'; it has been found on other Syngonium varieties as well as on Aglaonema roebellini (Lind.) Gentil., but the symptoms are less characteristic, and the disease is never as serious as on 'Green Gold.'

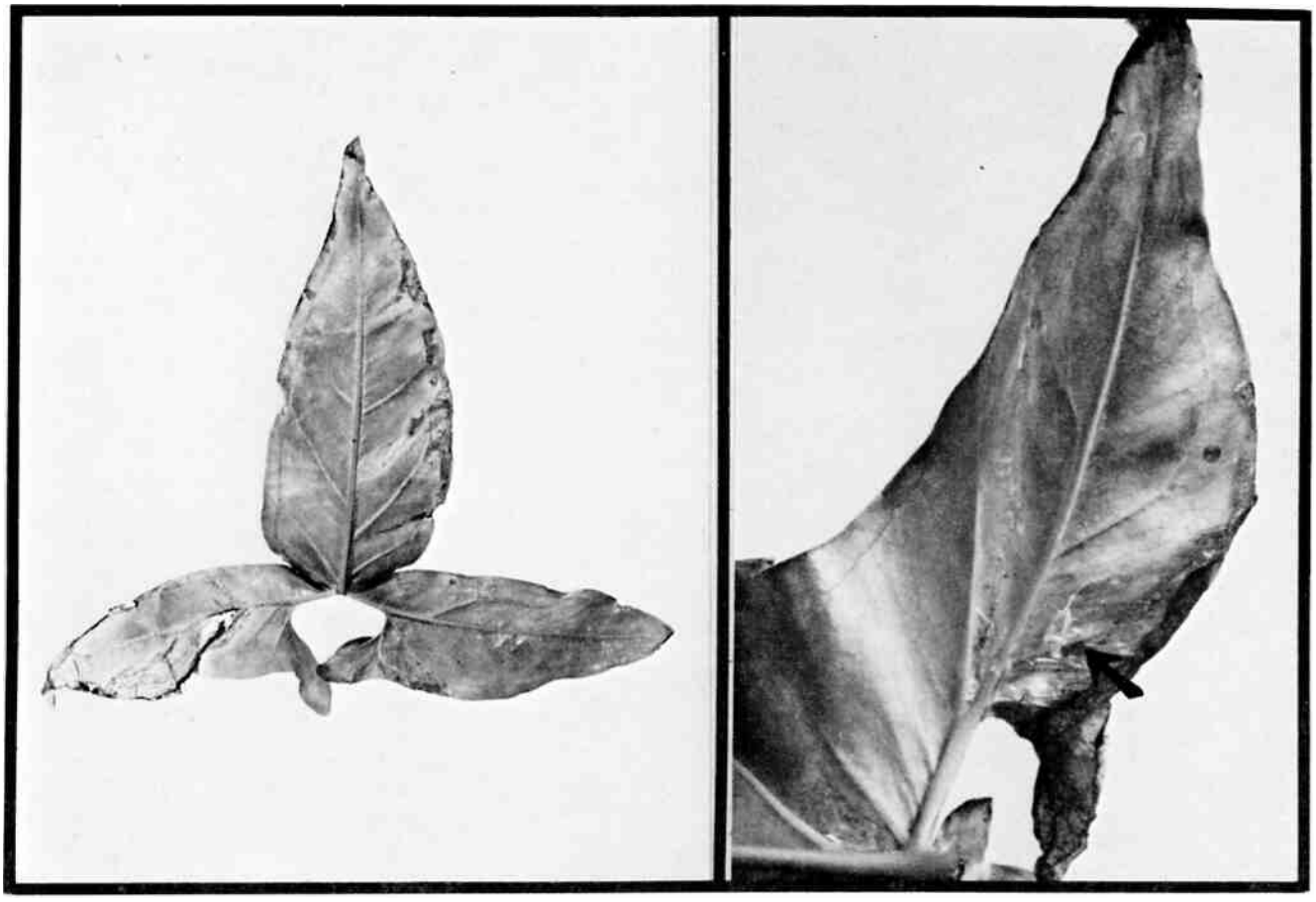

Fig. 1. Syngonium leaf showing marginal blight seen from the under side.

Fig. 2. Close-up of marginal blight lesion with white scales of dried bacterial exudate.

THE PATHOGEN. The causal agent of the disease is a bacterium, Xanthomonas vitians (Brown) Dowson. This bacterium was described in 1918 as the cause of leaf and stem rot of lettuce but has never been reported as a pathogen of Syngonium. Pathogenicity of our isolates from Syngonium was demonstrated by wound-inoculation of healthy leaves of both Syngonium and lettuce.

CONTROL. Keeping the greenhouses well ventilated and temperature and humidity low, so that the leaves of the plants will dry sooner after watering, will help prevent the disease from reaching dangerous proportions. If in spite of these cultural measures the disease still causes a problem, a few applications of Agri-strep at a streptomycin concentration of 100 ppm is recommended.

Selected Literature

1. Brown, Nellie A. 1918. Some bacterial diseases of lettuce. J. Agr. Res. 13:367-388.
2. Burkholder, W. H. 1954. Three bacteria pathogenic on head lettuce in New York State. Phytopathology 44:592-596.
3. Wehlburg, C. 1969. Bacterial leaf blight of Syngonium podophyllum. Phytopathology 59:1056 (Abstr.)